

A PROSPECTIVE COHORT STUDY COMPARING PATIENTS' PAIN, FUNCTIONAL OUTCOMES AND QUALITY OF LIFE PRE AND POST TOTAL KNEE ARTHROPLASTY: EXPERIENCE FROM A DISTRICT HOSPITAL, SOUTHERN KEDAH

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INTRODUCTION:

Knee osteoarthritis (OA) is a well-known cause of pain and functional disability. In patients suffering from severe OA, Total Knee Arthroplasty (TKA) is the most effective treatment and offers the patients pain relief and improved physical function^{1,2}. The aim of this prospective study was to compare the pain, functional outcomes and quality of life before and after TKA in a district hospital, Malaysia.

METHODS:

Patients were recruited for a prospective observational study of primary total knee arthroplasty in a district hospital, Kedah, Malaysia from January 2013 until December 2018. Preoperative and one-year post-operative patients' reported outcome measurement were obtained through Knee injury and Osteoarthritis Outcome Score (KOOS) questionnaire.

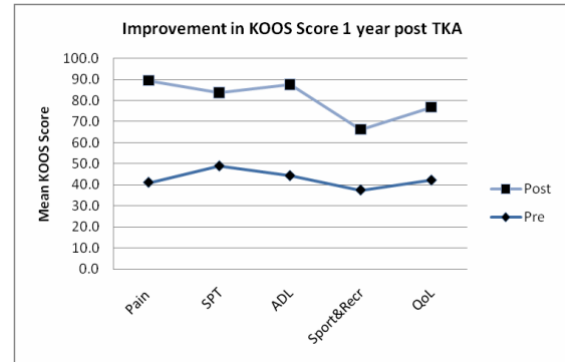
RESULTS:

Data from 348 patients who have completed one year follow up were included. The mean for each KOOS subscale were recorded and their differences between pre and post-surgery were analyzed. The improvement in KOOS sub scores were shown in Table 1 and Figure 1.

Table 1: Pre and Post KOOS Sub-scores

KOOS	Pre		Post		Mean Diff	pvalue ^a
	Mean	(SD)	Mean	(SD)		
Pain	41.1	(9.72)	89.5	(13.60)	48.5	(16.00) <0.001
Symptom	48.9	(12.42)	85.8	(15.53)	34.8	(21.48) <0.001
ADL	46.2	(13.04)	87.7	(16.96)	41.5	(20.26) <0.001
Sport & Recr	37.4	(16.24)	66.3	(20.82)	28.9	(26.52) <0.001
QoL	42.1	(19.70)	76.8	(16.32)	34.7	(26.22) <0.001

Note: ^a Paired t-test, SD = Standard Deviation, ADL= Activities of Daily life, Recr = Recreation, QoL = Quality of Life, diff= difference



Note: SPT= Symptom, ADL= Activities of Daily life, QoL = Quality of Life
Figure 1: Improvement in KOOS Score

DISCUSSIONS:

To our best knowledge, this is the first prospective study performed to study the mid-term effect of TKA in current setting. Our study shows that the patient-relevant outcome concerning pain, symptom, physical functions and quality of life improved significantly compared to baseline at 12-month. These results appeared to be comparable to other available study³. In order to fully evaluate the results of TKA in current setting, a longer term follow up of 5 years post-surgery will be performed for this cohort.

CONCLUSION:

Patients who underwent TKA in current setting showed significant and comparable improvement in postoperative outcome measurements one year after the surgery.

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